

**DECLARATION FOR PATENT APPLICATION**

As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name; I believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled "**BRIGHTNESS ENHANCEMENT OF DIODE LIGHT SOURCES**", the specification of which (check one): (X) is attached hereto; ( ) was filed on \_\_\_\_\_, as Application Serial No. \_\_\_\_\_ and was amended on \_\_\_\_\_ (if applicable); ( ) was filed as PCT International Application No. \_\_\_\_\_ on \_\_\_\_\_ and was amended under Article 19 on \_\_\_\_\_ (if applicable). I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose to the Patent and Trademark Office all information known to me to be material to patentability as defined in 37 C.F.R. §1.56.

I hereby claim foreign priority benefits under 35 U.S.C. §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

|                             |           |                        | Priority Claimed             |                             |
|-----------------------------|-----------|------------------------|------------------------------|-----------------------------|
| (Application Serial Number) | (Country) | (Month/Day/Year Filed) | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| _____                       | _____     | _____                  | <input type="checkbox"/>     | <input type="checkbox"/>    |
| (Application Serial Number) | (Country) | (Month/Day/Year Filed) | Yes                          | No                          |

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below:

| (Application Serial Number) | (Month/Day/Year Filed) |
|-----------------------------|------------------------|
| _____                       | _____                  |

I hereby claim the benefit under 35 U.S.C. §120 of any United States application(s) or PCT international application(s) designating the United States of America listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior application(s) in the manner provided by the first paragraph of 35 U.S.C. §112, I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 C.F.R. §1.56 which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

| (Application Serial Number) | (Month/Day/Year Filed) | (Status-Patented, Pending or Abandoned) |
|-----------------------------|------------------------|-----------------------------------------|
| _____                       | _____                  | _____                                   |
| (Application Serial Number) | (Month/Day/Year Filed) | (Status-Patented, Pending or Abandoned) |

\*Not yet assigned, entitled \_\_\_\_\_ by \_\_\_\_\_  
(Inventor)

**Declaration for Patent Application**

Attorney Docket No. 11-1138

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. §1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

**Send correspondence to:**

| FIRM NAME                                                     | PHONE NO.    | STREET                             | CITY & STATE      | ZIP CODE   |
|---------------------------------------------------------------|--------------|------------------------------------|-------------------|------------|
| Katten Muchin Zavis<br>Rosenman<br>Attn: Patent Administrator | 312-902-5200 | 525 West Monroe Street, Suite 1600 | Chicago, Illinois | 60661-3693 |

Declaration for Patent Application

Attorney Docket No. 11-1138

|                                                             |                                                                        |
|-------------------------------------------------------------|------------------------------------------------------------------------|
| Full Name of First or Sole Inventor<br>Hiroshi Komine       | Citizenship<br>U.S.A.                                                  |
| Residence Address - Street<br>3241 Candlewood Road          | Post Office Address - Street<br>(Same)                                 |
| City (Zip)<br>Torrance 90505                                | City (Zip)                                                             |
| State or Country<br>California                              | State or Country                                                       |
| Date<br><input checked="" type="checkbox"/> October 3, 2003 | Signature<br><input checked="" type="checkbox"/> <i>Hiroshi Komine</i> |

|                                             |                                                  |
|---------------------------------------------|--------------------------------------------------|
| Full Name of First or Sole Inventor         | Citizenship                                      |
| Residence Address - Street                  | Post Office Address - Street                     |
| City (Zip)                                  | City (Zip)                                       |
| State or Country                            | State or Country                                 |
| Date<br><input checked="" type="checkbox"/> | Signature<br><input checked="" type="checkbox"/> |

|                                             |                                                  |
|---------------------------------------------|--------------------------------------------------|
| Full Name of First or Sole Inventor         | Citizenship                                      |
| Residence Address - Street                  | Post Office Address - Street                     |
| City (Zip)                                  | City (Zip)                                       |
| State or Country                            | State or Country                                 |
| Date<br><input checked="" type="checkbox"/> | Signature<br><input checked="" type="checkbox"/> |

**APPLICABLE RULES AND STATUTES**

**37 CFR 1.56. DUTY OF DISCLOSURE - INFORMATION MATERIAL TO PATENTABILITY (Applicable Portion)**

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is canceled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is canceled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentability defines, to make sure that any material information contained therein is disclosed to the Office.

Information relating to the following factual situations enumerated in 35 USC 102 and 103 may be considered material under 37 CFR 1.56(a).

**35 U.S.C. 102. CONDITIONS FOR PATENTABILITY: NOVELTY AND LOSS OF RIGHT TO PATENT**

A person shall be entitled to a patent unless --

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or
- (c) he has abandoned the invention, or
- (d) the invention was first patented or caused to be patented, or was the subject of an inventor's certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months before the filing of the application in the United States, or
- (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraph (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent, or
- (f) he did not himself invent the subject matter sought to be patented, or
- (g) before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

**35 U.S.C. 103. CONDITIONS FOR PATENTABILITY; NON-OBVIOUS SUBJECT MATTER (Applicable Portion)**

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

**35 U.S.C. 112. SPECIFICATION (Applicable Portion)**

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Hiroshi Komine

Application No.: Herewith

Filing Date: Herewith

Title: BRIGHTNESS ENHANCEMENT OF  
DIODE LIGHT SOURCES

Group Art Unit: not assigned

Examiner: not assigned

Customer No.: 27160

) CERTIFICATE OF MAILING BY "EXPRESS MAIL"  
) "Express Mail" Mailing Label Number

) EV 162112472 US

) Date of Deposit 10-8-03

) I hereby certify that this paper or fee is  
) being deposited with the United States  
) Postal Service "Express Mail Post Office  
) to Addressee" Service under 37 CFR §1.10  
) on the date indicated above and is  
) addressed to:

) Mail Stop Patent Application  
) Commissioner for Patents  
) P.O. Box 1450  
) Alexandria, VA 22313-1450

MARIA ARREOLA-FLORES

(Typed or printed name of person mailing)

Maria Arreola-Flores  
(Signature of person mailing)

**Power of Attorney by Assignee of the Entire Interest**

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Revoking any and all powers of attorney and authorizations of agent heretofore made in respect to this application, the Assignee of this application hereby appoints the practitioners associated with the following attorneys as its attorneys, Customer No. 27160 with full power of substitution and revocation, to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith, and requests that all correspondence with respect to this application be directed to Patent Administrator, KATTEN MUCHIN ZAVIS ROSENMAN, 525 West Monroe Street, Suite 1600, Chicago, Illinois 60661. All telephone calls should be directed to (312) 902-5312.

|                        |        |                    |        |
|------------------------|--------|--------------------|--------|
| Timothy J. Vezeau      | 26,348 | Scott M. Gettleson | 38,158 |
| John S. Paniaguas      | 31,051 | James A. Gromada   | 44,727 |
| Richard P. Bauer       | 31,588 | Dawn C. Hayes      | 44,751 |
| Gilberto M. Villacorta | 34,038 | Michael A. Dorfman | 46,669 |
| Martin T. LeFevour     | 37,378 | Andrew J. Bateman  | 45,573 |
| Robert W. Hahl         | 33,893 | Robert R. Seabold  | 41,298 |
| Serge Sira             | 39,445 |                    |        |

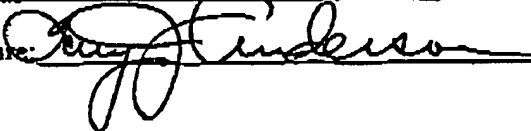
The undersigned (whose title is supplied below) is empowered to act on behalf of the assignee.  
A Certificate under 37 CFR § 3.73(b) is filed herewith.

Northrop Grumman Corporation

Date: Oct. 7, 2003

Name: Terry J. Anderson

Title: Senior Corporate Counsel

Signature: 

**CERTIFICATE UNDER 37 C.F.R. § 3.73(b)**

Applicants: Hiroshi Komine

Application No.: Herewith

Filed: Herewith

For: BRIGHTNESS ENHANCEMENT OF DIODE LIGHT SOURCES

Name of Assignee: Northrop Grumman Corporation

Type of Assignee: Corporation

certifies that it is the assignee of the entire right, title and interest in the patent application identified above by virtue of either:

A. ☒ An assignment from the inventor(s) (**Hiroshi Komine**) of the patent application identified above to **Northrop Grumman Corporation**.

OR

B. ☐ A chain of title from the inventor(s), of the patent application identified above, to as shown below:

1. From: \_\_\_\_\_

To: \_\_\_\_\_

The document was recorded in the U.S. Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, on \_\_\_\_\_.

2. Name change from \_\_\_\_\_.

The document was recorded in the U.S. Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, on \_\_\_\_\_.

3. From: \_\_\_\_\_

To: \_\_\_\_\_

The document was recorded in the Patent and Trademark Office at Reel \_\_\_\_\_, Frame \_\_\_\_\_, on \_\_\_\_\_.

PATENT  
Attorney Docket No. 11-1138

4. From: \_\_\_\_\_

To: \_\_\_\_\_

The document was recorded in the Patent and Trademark Office  
at Reel \_\_\_\_\_, Frame \_\_\_\_\_

[X] Copies of assignments or other documents in the chain of title are attached.

Representatives of the undersigned have reviewed all the documents in the chain of title of the patent application identified above and, to the best of the undersigned's knowledge and belief, title is in the assignee identified above.

The undersigned whose title is supplied below, is empowered to act on behalf of the assignee.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Northrop Grumman Corporation

Date: Oct 7, 2003

Name: Terry J. Anderson

Title: Senior Corporate Counsel

Signature: 